

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 335 ARCHITECTURAL COATINGS

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**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS**

REGULATION III - CONTROL OF AIR CONTAMINANTS

**RULE 335
ARCHITECTURAL COATINGS**

SECTION 100 - GENERAL

- 101 PURPOSE:** To limit the emission of volatile organic compounds from architectural coatings.
- 102 APPLICABILITY OF MULTIPLE STANDARDS:** In any instance where more than one of the standards set forth in this rule may be applicable, the most restrictive standard shall apply.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

- 201 ACRYLIC POLYMERS** - Polymers resulting from the polymerization of derivatives of acrylic acids, including esters of acrylic acids, methacrylic acid, acrylonitrile, and their copolymers. Also known as acrylic resins and acrylate resins.
- 202 ALKYDS** - Synthetic resins formed by the condensation of polyhydric alcohols with polybasic acids.
- 203 ARCHITECTURAL COATING** - Any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements or to curbs.
- 204 BELOW GROUND WOOD PRESERVATIVES** - Heavy duty coatings formulated solely for the purpose of protecting below ground wood from decay or insect attack and which contain a wood preservative.
- 205 BITUMINOUS COATING MATERIALS** - Black or brownish materials, soluble in carbon disulfide, consisting mainly of hydrocarbons and which are obtained from natural deposits, or as residues from the distillation of crude petroleum oils or of low grades of coal.
- 206 BOND BREAKERS** - Coatings whose sole purpose, when applied between layers of concrete, is to prevent the freshly poured top layer of concrete from bonding to the substrate on which it is poured.

- 207 CATALYZED EPOXY** - Crosslinking resins made by the reaction of epoxides with other material such as amines, alcohols, phenols, carboxylic acids and unsaturated compounds.
- 208 CONCRETE CURING COMPOUNDS** - Coatings whose sole purpose is to retard the evaporation of water from the surface of freshly cast concrete, thereby strengthening it.
- 209 CHLORINATED RUBBER** - Resin formed by the reaction of rubber with chlorine.
- 210 DRY FOG COATINGS** - Coatings which are formulated so that when sprayed, overspray droplets dry before falling on floors and other surfaces.
- 211 ENAMEL UNDERCOATERS** - Coatings which are designed to be applied to a new surface over a primer or over a previous coat of paint, in order to improve the seal, provide better adhesion and make a smooth base for non-flat coatings.
- 212 FIRE RETARDANT COATINGS** - Coatings which are designed to retard fires and which will significantly:
- 212.1** Reduce the rate of flame spread on the surface of a material to which such a coating has been applied; or
 - 212.2** Resist ignition when exposed to high temperature; or
 - 212.3** Insulate a substrate to which such a coating has been applied and prolong the time required for the substrate to reach ignition temperature.
- 213 FLAT COATINGS** - Coatings which register gloss less than 15 on an 85° meter or less than 5 on a 60° meter, or which is labeled as a flat coating.
- 214 GENERAL PRIMERS** - Coatings which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats.
- 215 GENERAL SEALERS** - Coatings which are intended for use on porous substrates to protect the substrate, to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.
- 216 GENERAL UNDERCOATERS** - Coating which are designed to provide a smooth surface for subsequent coats.
- 217 GRAPHIC ARTS COATINGS (SIGN PAINTS)** - Coatings which are marketed solely for application to indoor and outdoor signs and include lettering enamels, poster colors and bulletin colors.
- 218 INDUSTRIAL MAINTENANCE PRIMERS** - Coatings which are intended to be applied to a surface prior to the application of an industrial maintenance topcoat, to provide a firm bond between the substrate and subsequent coats.

- 219 INDUSTRIAL MAINTENANCE TOPCOATS** - High performance coatings which are formulated for the purpose of heavy abrasion, water immersion, chemical, corrosion, temperature, electrical or solvent resistance.
- 220 INORGANIC POLYMERS** - Substances whose principle structural features are made of homopolar interlinkages between multivalent elements other than carbon. This does not preclude the presence of carbon-containing groups in the side branches, or as interlinkages between principle structural members. Examples of such polymers are ethyl and butyl silicates.
- 221 LACQUERS** - Clear or pigmented coatings formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction and to provide a quick drying, solid protective film.
- 222 MASTIC TEXTURE COATINGS** - Coatings, except weatherproof mastic coatings, which are formulated to cover holes, minor cracks and to conceal surface irregularities.
- 223 METALLIC PIGMENTED PAINTS** - Any coatings which are formulated with metallic pigment and which contain more than 10 grams of metal particles per liter of coating (0.08 lb/gal) as applied where such metal particles are visible in the dried film.
- 224 MULTI-COLORED COATINGS** - Coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat.
- 225 NON-FLAT COATINGS** - Coatings which register gloss of 15 or greater on an 85° meter or 5 or greater on a 60° meter, or which are identified on the label as gloss, semi-gloss, or eggshell enamel coatings.
- 226 NON-PRECURSOR ORGANIC COMPOUND** - The following organic compounds have been designated by the EPA as having negligible photochemical reactivity: methane; ethane; methylene chloride; 1,1,1 trichloroethane; trichlorotrifluoroethane (CFC-113); trichlorofluoromethane (CFC-11); dichlorodifluoromethane (CFC-12); chlorodifluoromethane (CFC-22); trifluoromethane (FC-23); dichlorotetrafluoroethane (CFC-114) and chloropentafluoroethane (CFC-115).
- 227 OPAQUE STAINS** - All stains that are not classified as semitransparent stains.

Note¹

¹ This note is not part of Rule 335. For the reader's convenience, the current list of non-precursor organic compounds is found in Rule 100, Section 200.

- 228 OPAQUE WOOD PRESERVATIVES** - All wood preservatives that are not classified as semitransparent wood preservatives.
- 229 ORGANIC COMPOUND** - Any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates and ammonium carbonate.
- 230 QUICK-DRY ENAMELS** - Non-flat coatings which comply with the following:
- 230.1** Should be capable of being applied directly from the container by brush or roller when the ambient temperature is between 60°F and 80°F.
 - 230.2** When tested in accordance with ASTM D1640 they shall: set to touch in two hours or less, dry hard in eight hours or less, and be tack-free in four hours or less by the mechanical method test.
 - 230.3** Shall have a 60° meter dried film gloss of no less than 70.
- 231 QUICK-DRY PRIMERS AND SEALERS** - Primers, sealers and undercoaters which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats and which are dry to the touch in one-half hour and can be recoated in two hours (ASTM 1640).
- 232 ROOF COATINGS** - Coatings which are formulated for the sole purpose of preventing penetration of the substrate by water. These coatings include bituminous roof and waterproof mastic coatings.
- 233 SEMI-TRANSPARENT STAINS** - Coatings which are formulated to change the color of a surface but not conceal the surface.
- 234 SEMI-TRANSPARENT WOOD PRESERVATIVES** - Wood preservative stains which are formulated for the purpose of protecting exposed wood from decay or insect attack by the addition of a wood preservative chemical and which change the color of a surface but do not conceal the surface. These coatings perform their function by penetrating into the wood.
- 235 SHELLACS** - Clear or pigmented coatings formulated with natural resins (except nitrocellulose resins), thinned with alcohol, formulated to dry by evaporation without a chemical reaction and intended to provide stain blocking properties as well as a solid protective film.
- 236 SILICONES** - A resin containing silicon unlike organic resins, which all contain carbon. The basic structure of silicones consist of silicon-oxygen linkages.

- 237 SPECIALTY FLAT PRODUCTS** - Self-priming flat products used only to perform one of the following functions: repair fire, smoke or water damage; neutralize odors; block stains; or coat acoustical materials without affecting their acoustical abilities.
- 238 SPECIALTY PRIMERS, SEALERS, AND UNDERCOATERS** - Primers, sealers and undercoaters used only to perform one of the following functions: repair fire, smoke or water damage; neutralize odors; block stains; block efflorescence; condition chalky surfaces; or coat acoustical materials without affecting their acoustical abilities.
- 239 SWIMMING POOL COATINGS** - Coatings specifically formulated to coat the interior of swimming pools and resist swimming pool chemicals.
- 240 TILE-LIKE GLAZE COATINGS** - Coatings which are formulated to provide a tough, extra-durable coating system, which are applied as a continuous (seamless) highbuild film and which cure to a hard glaze finish.
- 241 TRAFFIC COATINGS** - Coatings which are formulated to be applied to public streets, highways, and other surfaces including, but not limited to curbs, berms, driveways, and parking lots.
- 242 UNIQUE VEHICLES** - Generic polymer components not defined by any of the coatings listed in the category of industrial primers and topcoats in Section 305 of this rule, e.g., hypalon, phenoxy.
- 243 URETHANE POLYMERS** - Coating vehicles containing a polyisocyanate monomer reacted in such a manner as to yield polymers containing any ratio, proportion, or combination of urethane linkages, active isocyanate groups, or polyisocyanate monomer.
- 244 VARNISHES** - Clear or pigmented coatings formulated with various resins to dry by chemical reaction or exposure to air. These coatings are intended to provide a durable, transparent or translucent, solid protective film.
- 245 VINYL CHLORIDE POLYMERS** - Polymers made by the polymerization of vinyl chloride or copolymerization of vinyl chloride with other unsaturated compounds, the vinyl chloride being in greatest amount by weight.
- 246 VOLATILE ORGANIC COMPOUND (VOC)** - Any organic compound except non-precursor organic compounds.
- 247 WATERPROOF MASTIC COATINGS** - Weatherproof and waterproof coatings which are formulated to cover holes and minor cracks and to conceal surface irregularities.

- 248 WATERPROOF SEALERS** - Coatings which are formulated for the sole purpose of protecting porous substrates by preventing the penetration of water.

SECTION 300 - STANDARDS

- 301 PROHIBITION - BITUMINOUS PAVEMENT SEALERS:** No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any architectural coating manufactured after July 13, 1988, which is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating.
- 302 INTERIM LIMITS - NON-FLAT ARCHITECTURAL COATINGS:** No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any non-flat architectural coating manufactured after July 13, 1989, which contains more than 3.2 lbs (380 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to speciality coatings listed in Section 305 of this rule.
- 303 FINAL LIMITS - NON-FLAT ARCHITECTURAL COATINGS:** No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any non-flat architectural coating manufactured after July 13, 1990, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to speciality coatings listed in Section 305 of this rule.
- 304 LIMITS - FLAT ARCHITECTURAL COATINGS:** No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any flat architectural coating manufactured after July 13, 1989, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to speciality coatings listed in Section 305 of this rule.
- 305 LIMITS - SPECIALTY COATINGS:** No person shall apply, sell, offer for sale or manufacture for sale within Maricopa County any architectural coating that exceeds the following limits manufactured after the date listed below. Limits are expressed in pounds of VOC per gallon of coating as applied, excluding water and any colorant added to tint bases.

	<u>Effective Dates</u>		
	7/13/89	7/13/90	7/13/91
<u>COATING</u>			(lb/gal)
Concrete Curing Compounds	-	-	2.9
Dry Fog Coating			
Flat	4.6	-	3.5
Non-flat	3.5	-	3.3
Enamel Undercoaters	3.8	-	2.9
General Primers, Sealers and Undercoaters	3.3	-	2.9
Industrial Maintenance Primers and Topcoats			
Alkyds	4.2	3.5	3.5
Catalyzed Epoxy	-	4.2	3.5
Bituminous Coating			
Materials	-	-	3.5
Inorganic Polymers	-	-	3.5
Vinyl Chloride Polymers	-	-	3.5
Chlorinated Rubbers	-	-	3.5
Acrylic Polymers	-	3.5	3.5
Urethane Polymers	-	3.5	3.5
Silicones	-	-	3.5
Unique Vehicles	-	-	3.5
Lacquers	-	-	5.7
Opaque Stains	3.3	-	2.9
Wood Preservatives	-	-	2.9
Quick Dry Enamels	-	-	3.3
Roof Coatings	-	-	2.5
Semi-transparent Stains	-	-	2.9
Semi-transparent and Clear Wood Preservatives	-	-	2.9
Opaque Wood Preservatives	3.3	-	2.9
Specialty Flat Products	-	-	3.3
Specialty Primers, Sealers & Undercoaters	-	-	2.9
<i>Stains, All</i>	-	-	2.9
Traffic Coatings			
Applied to Public Streets and Highways	3.5	-	2.1
Applied to other Surfaces	2.1	-	2.1
Black Traffic Coatings	-	-	2.1
Varnishes	-	4.2	2.9
Waterproof Mastic Coating	-	-	2.5
Waterproof Sealers	-	-	3.3
<i>Wood Preservatives Except Below Ground</i>	-	-	2.9

Note²

² This note is not part of Rule 335. For the reader's convenience, words in italics are not part of this Rule 335, but are alphabetized repeats of listed coatings.

306 EXEMPTIONS - SPECIFIC USE COATINGS: This rule shall not apply to architectural coatings recommended by the manufacturer for use solely as one or more of the following:

306.1 Below ground wood preservative coatings.

306.2 Bond breakers.

306.3 Fire retardant coatings.

306.4 Graphic arts coatings (sign paints).

306.5 Mastic texture coatings.

306.6 Metallic pigmented coatings.

306.7 Multi-colored paints.

306.8 Quick-dry primers, sealers and undercoaters.

306.9 Shellacs.

306.10 Swimming pool paints.

306.11 Tile-like glaze coatings.

307 EXCEPTION - SMALL CONTAINERS: The provisions of this rule shall not apply to architectural coatings supplied in containers having capacities of one quart or less.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 LABELING REQUIRED: Effective July 13, 1989, containers for all coatings subject to this rule shall carry a statement of the manufacturer's recommendation regarding thinning of the coatings. Data may be quantified with either English or metric units. This requirement shall not apply to the thinning of the architectural coatings with water. The recommendation shall specify that the coating is to be employed without thinning or diluting under normal environmental and application conditions, unless the recommended thinning for normal environmental and application conditions does not cause the coating to exceed its applicable standard. Architectural coatings subject to the Federal Insecticide, Fungicide and Rodenticide Act shall not be subject to the labeling requirements of this rule.

- 402 MANUFACTURE DATE REQUIRED:** Containers for all coatings subject to the provisions of this rule shall display the date of manufacture of the contents or a code indicating the date of manufacture. The manufacturers of such coatings shall file with the Control Officer an explanation of each code.

SECTION 500 - MONITORING AND RECORDS

- 501 DETERMINATION OF COMPLIANCE:** Testing procedures to determine compliance with prescribed VOC limits shall be consistent with Reference Methods 24 and 24A in the Arizona Testing Manual for Air Pollutant Emissions.

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